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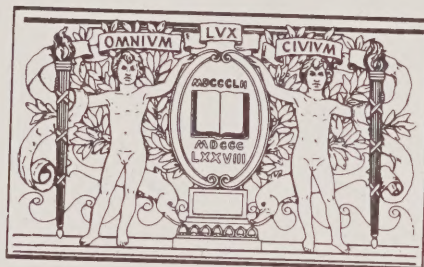
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Results of the 1985 Household Survey

VII. School-Aged Children

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Boston at Mid-Decade
Results of the 1985 Household Survey
VII. School Aged Children

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October 1986

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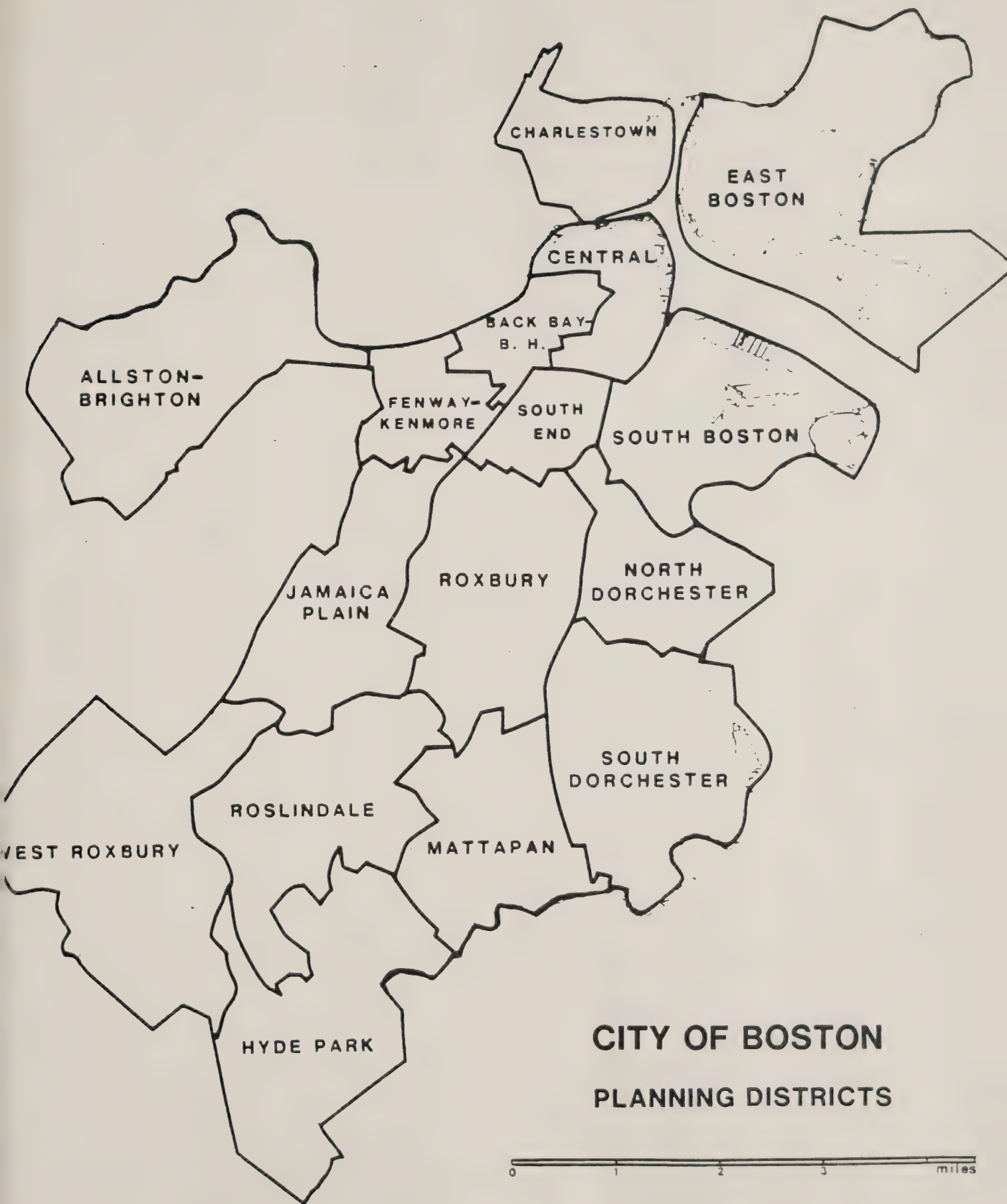


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Introduction

The 1985 Household Survey contains current information about school-aged children, including enrollment, race and hispanic origin, and family income. The Survey, a series of interviews with representative, scientifically chosen households in Boston, gives rich information about both the population living in households and the housing of Boston. The survey was not designed to sample group quarters populations such as those in dormitories, long-term care hospitals, homes for the aged, and orphanages. Therefore, the survey results cannot be generalized to the total population of Boston. See Appendix B for a more detailed description of the sample design and Appendix A for definitions of the variables used in the Survey. While this report focuses on children, other reports in the Household Survey series cover demographics, housing, labor force, and other topics.

Enrollment

In both 1980 and 1985, 16 percent of the population of Boston was aged 5 to 17 years, the expected ages of primary and secondary school attendance. Table 1 indicates that 97 percent of these children are enrolled in school, nearly two-thirds in public school, one-quarter in parochial school, and less than five percent in private, non-parochial school. The proportion enrolled in parochial school has experienced a decline from 31 percent in 1980 to 25 percent in 1985, while the proportion in public school has risen slightly, from 59 percent in 1980 to 64 percent in 1985.

Race and Hispanic Origin

The racial and ethnic composition of school-aged children is shown in Table 2. Between 1980 and 1985 the proportions of white and minority have

reversed themselves, with whites now making up 43 percent and minorities comprising 57 percent. Blacks now comprise over one-in-three students compared to one-in-four in 1980, while Hispanics account for one-in-seven students, an increase from one-in-twelve in 1980. The increase in blacks and Hispanics is seen in all three age groups. However, Hispanics comprise a much larger proportion of the elementary school-aged population than of the high school-aged population because of the generally younger age distribution of Hispanics.

The location of school-aged children has shifted somewhat between the neighborhoods in the 1980-85 period. While the neighborhood groupings shown in Table 3 are not identical for 1980 and 1985, some indication of these shifts is evident. For instance, a relatively smaller proportion of all school-aged children live in the northern part of the city, in either the East Boston/ Charlestown/South Boston grouping or Central/Back Bay/South End/Fenway-Kenmore/Allston-Brighton area. The proportions are larger in the Roxbury, Mattapan, and West Roxbury/Roslindale/Hyde Park areas. Table 3 also shows how the proportional distribution across neighborhoods of children of various racial backgrounds has changed. White school-aged children in 1985 are more heavily concentrated in West Roxbury/Roslindale and Hyde Park than in 1980. Whites are less concentrated in North and South Dorchester and elsewhere. Black school-aged children are more dispersed than in 1980. While Roxbury and Mattapan each continue to house over one-in-four black children aged 5-17, the Dorchesters now are home to one-in-four also. Two-thirds of Hispanic children live in the Dorchesters and Jamaica Plain/ Parker Hill, with the increasing proportions representing a substantial increase both in numbers and in the proportion of the neighborhoods' children, seen in Table 4.

The racial composition of school-aged children in neighborhoods, seen in Table 4, has remained stable among neighborhoods in the northern part of Boston. However, there have been marked changes in Jamaica Plain, North and South Dorchester, and Hyde Park where the proportions black and Hispanic among children have increased substantially. Whites comprise well over 90 percent of school-aged children in East Boston, Charlestown, South Boston, West Roxbury, and Roslindale. They make up about half the children in Hyde Park and smaller proportions of children in other neighborhoods. About four-out-of-five school children in Roxbury and Mattapan are black. Black school-aged children are about one-third of the total in Jamaica Plain, the Dorchesters, and Hyde Park. Hispanics account for 40 percent of the school children in Jamaica Plain-Parker Hill and 20 percent in North and South Dorchester, compared to 14 percent of the school-aged population of all Boston. Asians account for one-in-four school children in the aggregated neighborhoods containing Chinatown and Allston-Brighton.

Family Composition

Table 5 indicates that a little over half of school-aged children in Boston reside with both mother and father and another 40 percent live with a single parent, either with or without other relatives present. Two-thirds of white children live in married couple households but closer to 40 percent of black and Hispanic children have these living arrangements. Over half of black and Hispanic children live with a single parent compared to 30 percent of white school-aged children. These proportions have not changed much between 1980 and 1985, except that there was a noticeable shift among Hispanic children from living with single parent and others in 1980 to living in a married couple family in 1985.

Income

Family incomes of school-aged children have remained fairly constant in real dollars between 1979 and 1984 and have continued to lag behind incomes of all families. The median family income in 1984 of a school-aged child was \$16,875, compared to the 1979 median income of \$16,920 in 1984 dollars. These were well below the median income of all families in 1984, \$21,000 and in 1979, \$22,969 measured in 1984 dollars.

The family incomes of all racial groups except Other have increased in real dollars since 1979. The large decline in the income of the Other category may be due to the large numbers of newly arrived Asian immigrants. Despite the increases for white, black, and Hispanic families of school-aged children, income disparities remain among these groups. The 1984 white median of \$29,412 is more than double the median for black families, and almost triple the median for Hispanic families. While one-third of families of school-aged children earn less than \$10,000, the proportion is 18 percent among white families, 37 percent among black families, and 50 percent among Hispanic families.

Over one-in-three (36 percent) school-aged children live in poverty. For white children, the proportion is one-in-seven with family incomes below the poverty level in 1984. However, this proportion more than doubles for black children to 41 percent and quadruples for Hispanic and other children to 65 and 68 percent, respectively.

The primary source of income among school-aged children's families is wages and salaries. Table 7 shows that 76 percent of school children in 1985 lived in families with wages and salaries as their primary source of income, little changed from 75 percent in 1980. The other major source of income is transfer payments which supported 20 percent of school-aged children in

1985, again little changed from 1980. Transfer payments are the primary source of support among a higher percentage of minority children than of white children. Transfer payments support 10 percent of white children, over 20 percent of black children, and 37 percent of Hispanic and other children, a number of whom may be members of families who immigrated here recently. Comparing the proportion of children supported principally by transfer payments with the proportion in poverty in Table 6, it is evident that some 40 percent of children in poverty are supported primarily by family wages, not by transfer payments: there are a significant number of these children in poverty who are supported by the working poor.

Public School Enrollees

The school-aged children enrolled in public schools have a somewhat different profile from all children 5-17 years old in Boston. For example, Table 8 shows that the proportion white among public school students is much lower than the proportion among all children 5 to 17 years, 27 percent as opposed to the 43 percent shown in Table 2. As a result, the proportions of public school students who are from minority groups are higher, 43 percent are black, 19 percent are Hispanic, and 6 percent are Asian. A comparison of Table 8 and Table 5 indicates that public school students are more likely to live in single parent families, 44 percent versus 36 percent of all children 5 to 17 years, and less likely to live in married couple families, 49 percent versus 46 percent.

Table 9 shows the income and poverty status of public school enrollees. Median family income of public school children in 1984 was only about three-

fourths of the income for all school-aged children, \$12,857 versus \$16,875. Again, minority children's family incomes are considerably lower than white children's family incomes, as was seen in Table 6.

Forty-five percent of public school students live in families with incomes below the poverty level, compared to 36 percent of all school-aged children. The poverty rates for black and Hispanic children in public school are roughly comparable to all school-aged children, but those for white public school children are considerably higher, at 28 percent. The proportion of children supported by wages (72 percent) is somewhat lower and by transfer payments (24 percent) somewhat higher than among all school-aged children.

In general, public school students live in families that have fewer economic resources to call on than do other school-aged children, on average. Moreover, a smaller proportion of them can draw on the support of a two-parent family. Therefore, a higher proportion of them are likely to need extra academic and social support from the schools or other agencies.

Tables

TABLE 1

PERCENT DISTRIBUTION OF SCHOOL-AGED CHILDREN
(5-17 YEARS) BY AGE GROUPS, ENROLLMENT STATUS, AND
TYPE OF SCHOOL: 1985, 1980

<u>Age Group</u>	<u>All School- Aged Children</u>	<u>Not Enrolled</u>	<u>Total Enrolled</u>	<u>Public</u>	<u>Private, Church- Related</u>	<u>Private, Non- Church- Related</u>	<u>Not Ascertained</u>
<u>1985</u>							
5-10 years	100%	3	97	61	27	5	4
11-13 years	100%	2	98	61	29	3	5
14-17 years	100%	2	98	69	21	4	4
Total	100%	3	97	64	25	4	4
<u>1980</u>							
5-10 years	100%	4	96	62	27	5	2
11-13 years	100%	2	98	57	37	1	3
14-17 years	100%	3	97	58	32	4	3
Total	100%	3	97	59	31	4	3

Based on 540 and 512 cases (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by Center for Survey Research, 1985 and 1980.

TABLE 2

PERCENT DISTRIBUTION OF SCHOOL-AGED CHILDREN
WITHIN AGE GROUPS BY SEX AND BY RACE,
1985, 1980

	<u>Sex</u>		<u>Race</u>					
<u>Age Group</u>	<u>Male</u>	<u>Female</u>	<u>White</u>	<u>Black</u>	<u>Hispanic*</u>	<u>Asian</u>	<u>Other</u>	<u>Total**</u>
<u>1985</u>								
5-10 years	49	51	42	33	18	4	3	100%
11-13 years	47	53	43	37	14	5	1	100%
14-17 years	55	45	45	38	7	3	5	100%
Total	51	49	43	36	14	4	3	100%
<u>1980</u>								
5-10 years	49	51	55	27	10	6	2	100%
11-13 years	55	45	60	23	10	5	2	100%
14-17 years	50	50	61	29	4	5	1	100%
Total	51	49	58	27	8	6	2	100%

* In 1980, Hispanic included only the self declared. In 1985, the Hispanic category includes both self enumerated and those, initially in other racial groups, who were assigned to Hispanic because they either speak Spanish at home or were born in a Spanish-speaking country.

** May not total exactly due to rounding.

Based on 530 and 504 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by Center for Survey Research, 1985 and 1980.

TABLE 3

PERCENT DISTRIBUTION OF SCHOOL AGED CHILDREN (5-17) YEARS) IN
DIFFERENT RACIAL GROUPS BY NEIGHBORHOOD, 1985, 1980

<u>Neighborhood</u> 1985	<u>Race</u>				<u>Total</u>
	<u>White</u>	<u>Black</u>	<u>Hispanic**</u>	<u>Other*</u>	
East Boston/Charlestown/ South Boston	27	0	5	1	13
Central/Back Bay/South End/Fenway/Kenmore/ Allston-Brighton	14	5	5	19	12
Jamaica Plain/Parker Hill	6	9	29	0	9
Roxbury	1	26	11	6	13
North Dorchester/ South Dorchester	20	25	38	13	25
Mattapan	1	29	4	4	12
W. Roxbury/Roslindale	21	0	2	0	10
Hyde Park	10	6	7	3	8
BOSTON	100%	100%	100%	100%	100%

<u>Neighborhood</u> 1980	<u>Race</u>				<u>Total</u>
	<u>White</u>	<u>Black</u>	<u>Hispanic**</u>	<u>Other*</u>	
East Boston	15	0	5	0	9
Charlestown/Central/South End/Fenway/Kenmore	5	8	7	21	7
South Boston	14	0	10	3	9
Allston/Brighton	8	0	10	39	8
Roslindale/Jamaica Plain/ Parker Hill	12	4	24	13	11
Roxbury	1	35	15	5	11
North Dorchester	9	6	10	11	10
South Dorchester	18	13	12	8	15
Mattapan	2	33	7	3	11
W. Roxbury/Hyde Park	16	3	0	0	10
BOSTON	100%	100%	100%	100%	100%

* Other includes Oriental, American Indian, Portuguese - Cape Verdean, Mixed and Other

** Hispanic includes self-designated Hispanics and those originally in other racial groups who were allocated to Hispanic on the basis of birthplace and language spoken at home.

Based on 504 and 531 (weighted) cases, respectively.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by Center for Survey Research, 1985 and 1980.

TABLE 4

PERCENT DISTRIBUTION OF SCHOOL AGED CHILDREN
IN NEIGHBORHOODS BY RACE, 1985, 1980

<u>Neighborhood</u> 1985	<u>Race</u>					<u>Total</u>
	<u>White</u>	<u>Black</u>	<u>Hispanic**</u>	<u>Asian</u>	<u>Other*</u>	
East Boston/Charlestown/ South Boston	94	0	5	1	0	100%
Central/Back Bay/South End/Fenway/Kenmore/ Allston-Brighton	22	14	9	26	0	100%
Jamaica Plain	26	34	40	0	0	100%
Roxbury	5	17	11	0	8	100%
North Dorchester/ South Dorchester	36	36	20	0	7	100%
Mattapan	4	85	7	0	4	100%
W. Roxbury/Roslindale	98	0	2	0	0	100%
Hyde Park	55	29	11	5	0	100%
BOSTON	43	36	14	4	3	100%

<u>Neighborhood</u> 1980	<u>Race</u>					<u>Total</u>
	<u>White</u>	<u>Black</u>	<u>Hispanic**</u>	<u>Asian</u>	<u>Other*</u>	
East Boston	96	0	4	0	0	100%
Charlestown/Central/South End/Fenway/Kenmore	44	28	8	21	0	100%
South Boston	89	0	8	2	0	100%
Allston/Brighton	56	0	9	33	2	100%
Roslindale/Jamaica Plain	66	9	17	9	0	100%
Roxbury	5	82	10	0	3	100%
North Dorchester	63	19	9	0	9	100%
South Dorchester	68	22	6	2	1	100%
Mattapan	11	82	5	0	2	100%
W. Roxbury/Hyde Park	93	7	0	0	0	100%
BOSTON	59	27	8	6	2	100%

* Other includes American Indian, Portuguese and Cape Verdean, Mixed Ancestry and Other.

** Hispanic includes both self-designated Hispanics and persons allocated to Hispanic on the basis of birthplace and language spoken at home.

Based on 504 and 531 (weighted) cases, respectively.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by Center for Survey Research, 1985.

TABLE 5

SCHOOL-AGED CHILDREN BY RACE AND FAMILY COMPOSITION: 1985 and 1980

<u>Family Composition</u>	<u>White, Not Hispanic</u>	<u>Black</u>	<u>Asian and Other</u>	<u>Hispanic**</u>	<u>Total</u>
1985					
Married couple ¹	69	43	61	47	56
Single parent	29	43	21	52	36
Single parent, others	2	12	13	0	6
Other relatives	1	1	0	0	1
Unrelated persons	*	2	0	2	1
All Families	100%	100%	100%	100%	100%
1980					
Married Couple	68	42	70	34	58
Single parent	27	43	8	55	32
Single parent, others	4	13	20	12	8
Other relatives ²	1	2	0	0	1
All Families	100%	100%	100%	100%	100%

1. May include married couples with children and others.

2. Includes children living with unrelated individuals.

* Less than 0.5%

** In 1985, Hispanic included self-designated Hispanics plus those initially in other racial groups who were assigned to Hispanic because they spoke Spanish at home or were born in a Spanish-speaking country.

Based on 494 and 531 observations (weighted), respectively.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by Center for Survey Research, 1985.

TABLE 6

SCHOOL-AGED CHILDREN, 5-17 YEARS, IN 1985 BY RACE AND
FAMILY INCOME, 1984, WITH 1980 COMPARISONS

Family Income	Race and Hispanic Origin				All Races
	White	Black	Hispanic*	Other**	
1985					
Less than \$7,000	12	26	42	48	24
\$7,000-9,999	6	11	8	24	9
\$10,000-14,999	8	17	25	4	14
\$15,000-19,999	8	8	0	16	8
\$20,000-29,999	17	17	17	8	16
\$30,000-39,999	21	13	7	0	15
\$40,000 or more	27	8	0	0	14
All Incomes	100%	100%	100%	100%	100%
Median	\$29,412	\$13,824	\$10,000	\$7,250	\$16,875
1980					
Less than \$7,000	20	37	65	21	28
\$7,000-9,999	9	19	30	38	15
\$10,000-14,999	16	26	5	29	19
\$15,000-19,999	17	13	0	0	13
\$20,000-29,999	23	4	0	12	15
\$30,000 or more	16	2	0	0	10
All Incomes	100%	100%	100%	100%	100%
Median	\$16,471	\$ 9,053	\$5,385	\$ 9,289	\$11,842
Median (1984\$)	\$23,534	\$12,935	\$7,694	\$13,272	\$16,920
Poverty Status (1984)					
Proportion in Poverty	17	41	65	68	36

* In 1985, Hispanic includes self-designated Hispanics plus those initially in other racial groups who were assigned to Hispanic because they spoke Spanish at home or were born in a Spanish-speaking country.

** Other includes Asian, Native American, Cape Verdean and Other Racial Groups.

Based on 432 and 472 cases (weighted), respectively.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by Center for Survey Research, 1985 and 1980.

TABLE 7

PERCENT DISTRIBUTION OF SCHOOL-AGED CHILDREN BY RACE
AND BY PRIMARY SOURCE OF FAMILY INCOME, 1985 AND 1980

<u>Primary Source of Family Income</u>	<u>White</u>	<u>Black</u>	<u>Hispanic*</u>	<u>Other**</u>	<u>Total</u>
<u>1985</u>					
Wages and Salaries	85	77	60	52	76
Income from Property	1	0	0	5	1
Transfer Payments	10	23	37	37	20
Alimony, Child Support, Friends & Relatives	3	*	3	0	2
Pension or Annuity	1	0	0	0	1
Gambling, Lottery, Scholarship	1	0	0	0	*
All Sources	100%	100%	100%	100%	100%
<u>1980</u>					
Wages and Salaries	78	76	38	87	75
Income from Property	1	0	0	0	1
Transfer Payments	18	23	62	13	22
Alimony, Child Support, Friends & Relatives	2	1	0	0	1
Pension or Annuity	1	0	0	0	*
Gambling, Lottery, Scholarship	*	0	0	0	*
All Sources	100%	100%	100%	100%	100%

* In 1985, Hispanic includes self-designated Hispanics plus those initially in other racial groups who were assigned to Hispanic because they spoke Spanish at home or were born in a Spanish-speaking country.

** Other includes Asian, Native American, Cape Verdean and Other Racial Groups.

Based on 496 and 521 cases (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by Center for Survey Research, 1985 and 1980.

TABLE 8

SCHOOL-AGED CHILDREN ENROLLED IN PUBLIC SCHOOL
BY AGE GROUPS AND RACE: 1985

<u>Age Groups</u>	<u>Race and Hispanic Origin</u>					<u>Total</u>
	<u>White, Not Hispanic</u>	<u>Black</u>	<u>Asian</u>	<u>Other</u>	<u>Hispanic*</u>	
5-10 years	27	37	7	3	27	100%
11-13 years	25	43	7	2	23	100%
14-17 years	29	49	4	7	11	100%
All 5-17 years	27	43	6	4	19	100%

SCHOOL-AGED CHILDREN ENROLLED IN PUBLIC
SCHOOLS BY FAMILY TYPE AND RACE: 1985

<u>Family Composition</u>	<u>Race and Hispanic Origin</u>				<u>Total</u>
	<u>White, Not Hispanic</u>	<u>Black</u>	<u>Asian and Other</u>	<u>Hispanic*</u>	
Married couple	53	42	72	49	49
Single parent	42	47	28	51	44
Single parent, others	3	9	0	0	6
Other relatives or Unrelated persons	1	3	0	0	2
All Families	100%	100%	100%	100%	100%

* Hispanic includes all self-designated hispanics plus those initially in other racial groups who were assigned to Hispanic because they spoke Spanish at home or were born in a Spanish-speaking country.

Based on 320 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by Center for Survey Research, 1985.

TABLE 9

SCHOOL-AGED CHILDREN ENROLLED IN PUBLIC SCHOOL
BY RACE AND HISPANIC ORIGIN BY INCOME CHARACTERISTICS: 1985

	<u>White, Not Hispanic</u>	<u>Black</u>	<u>Hispanic**</u>	<u>Total</u>
INCOME				
Less than \$5,000	17	23	21	21
\$ 5,000- 9,999	15	15	30	21
\$10,000-14,999	6	15	27	14
\$15,000-19,999	10	10	0	9
\$20,000-24,999	8	10	6	8
\$25,000-29,999	6	9	10	8
\$30,000-34,999	16	7	2	8
\$35,000-39,999	3	4	5	4
\$40,000-49,999	12	4	0	5
\$50,000 or more	8	3	0	4
All Incomes	100%	100%	100%	100%
Median Income	\$21,250	\$14,000	\$9,833	\$12,857
LARGEST SOURCE OF INCOME				
Work, Salary	83	77	57	72
Rents, Interest, Dividends	0	0	0	1
Social Security, SSI	5	2	2	2
Welfare, AFDC, Disability, Unemployment, etc.	11	21	38	24
Alimony, Child Support	1	0	0	*
Other	0	0	3	1
All Sources	100%	100%	100%	100%
POVERTY STATUS				
Proportion in Poverty	28	40	66	45

May not sum up to 100 percent due to rounding.

* Less than 0.5 percent.

** Hispanic includes all self-designated Hispanics plus those initially in other racial groups who were assigned to Hispanic because they spoke Spanish at home or were born in a Spanish-speaking country.

Based on 278, 313, and 278 observations (weighted) respectively.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by Center for Survey Research, 1985.

Appendix A

DEFINITIONS AND EXPLANATIONS OF TERMS USED IN THE HOUSEHOLD SURVEY

Definitions of population and household characteristics are adapted from or are the same as those used by the U.S. Bureau of the Census. All characteristics of individual persons and housing units are given by respondents. The only exceptions to this are for the types of appliances in the kitchen, how modern the kitchen is, the number of units in the building, and exterior condition of the housing. These characteristics are reported by the individual conducting the interview.

GEOGRAPHY

Neighborhood - The term neighborhood refers to one of sixteen BRA Planning districts in Boston.

Boston Metropolitan Area - The Boston metropolitan or "metro" area consists of towns and cities surrounding Boston which are socially and economically integrated with Boston. The metro area, as used in the survey, is the Boston Standard Metropolitan Statistical Area as it was defined in 1980.

CHARACTERISTICS OF PERSONS

Race - The categories of race in the 1980 and 1985 Household Survey include Black, Asian, Native American, Hispanic, and White, not Hispanic. Respondents were asked, "Which of these [categories] best describe person's background -- Black, Asian, Hispanic, White, Native American, or something else?" This is not comparable to the 1970 and 1980 U.S. Census which asked two separate questions, the first identifying race and the second identifying Hispanic status. In addition to self-designated Hispanics, persons of other races in the Survey were moved to Hispanic from their initial category if they spoke Spanish at home or were born in a Spanish-speaking country.

Non-White - This category includes persons who designated themselves to be Black; Asian, including Chinese, Japanese, etc.; American Indian; Cape Verdean; or mixed racial background or other non-white.

Minority - Individuals were classified minority if they designated themselves to be Black, Oriental, American Indian, Cape Verdean, of mixed racial background, or other non-white (all of which are included in non-white) or Hispanic.

Ethnicity - Ethnicity is determined by the country of origin of a person's family. The question asks, "From what country or part of the world did most of (PERSON'S) family come from originally?" A Black person might answer, Africa or Jamaica. A person whose parents came from different countries, for example, Ireland and Poland, would answer whichever country (most of his or her family came from, or whichever) seem most appropriate. The information obtained from this question is compatible with 1980 Census information.

Handicapped - A person is defined as handicapped if he or she has health problem that limits the amount or kind of work he or she can do. Respondents could then indicate the type of condition and whether or not the person has had the condition for three months.

HOUSEHOLD, FAMILY AND UNRELATED INDIVIDUAL

Household - A household includes all the persons who occupy a group of rooms or a single room which constitutes a housing unit. These residents may be related to each other (a family) or be unrelated individuals who share the unit.

Family Unit - A family unit consists of two or more persons related by blood, marriage or adoption. A single individual living alone or with unrelated persons is also considered a family unit.

Family - A family is a family unit which contains two or more family members.

Unrelated Individual - An unrelated individual is a member of a household who is not related to any other household member by blood or marriage, e.g., a person living alone, sharing a house or apartment with other unrelated individuals, or a boarder in a home.

Head of Family Unit - The head of a family unit is defined by policy as (1) the only adult, (2) husband of a married couple, (3) the person whose age is closest to 45 years.

Head of Household - The head of a household is the head of the first family the respondent mentions.

EMPLOYMENT STATUS

Employed - A person is considered employed if he/she is 16 years and over and was either working during the week before the interview or was on paid leave, or was working at least fifteen hours a week without pay in a family business, or was on temporary lay-off from a job due to lack of work.

Unemployed - A person 16 years and over who is not employed for pay but has been seriously looking for work during the previous four weeks and is available to accept a job. In addition, persons who have jobs which have not yet started are considered unemployed.

Labor Force - The labor force includes all persons 16 years of age and over who are either employed (including members of the Armed Forces) or unemployed.

Not in the Labor Force - All persons 16 years and over who are not classified as employed or unemployed are defined as not in the labor force. This category consists of retired workers, homemakers, students and ill or disabled persons.

Labor Force Participation Rates - Labor force participation rates are determined by summing all labor force participants in a particular population, and dividing by the total number of persons 16 years and over in that population.

Industry - The industry in which a person works is the kind of organization or business in which he is employed -- for example, a hospital, construction firm, or a government agency. The Standard Industrial Code (SIC) is used to categorize employing organizations.

Occupation - An occupation is the kind of work a person does, for example, clerical work, welding, or sales. The 1980 Census occupational code is used as the basis for classifying types of jobs.

ECONOMIC CHARACTERISTICS

Family Income - Family income is the total of the income from all sources that flows to all family members.

Unrelated Individual Income - The income of a single person.

Household Income - The combined income of all single people and families occupying a housing unit.

Source of Income - One of numerous specified categories contributing at least \$500 per year to family income. The categories are wages and salaries; income from property; transfer payments; alimony; child support; gifts; pension or annuity; scholarship or fellowship; inheritance or life insurance; and gambling or lottery.

Poverty Status - A family or single person (unrelated individual) is defined as being poor if individual income is below the Bureau of Labor Statistics Poverty Guidelines. The guidelines apply to the Boston Metropolitan Area and are not the same as poverty guidelines. Because family units and individuals were not asked to report their exact income in the survey, but rather to select an income category in which their 1979 income fell, it is impossible to be precise in assigning families and persons to low-income status. Below is a table presenting family unit size, low-income threshold, and the income cut-off used in the survey.

<u>Family Size</u>		<u>Poverty Jan. 85 Guideline</u>	<u>Survey Poverty Category</u>
1 Person	65	\$ 5,280	\$ 5,999 or less
1 Person	65		
2 Persons	65	6,760	6,999 or less
2 Persons	65		
3 Persons		8,280	7,999 or less
4 Persons		10,610	9,999 or less
5 Persons		12,560	12,499 or less
6 Persons		14,210	
7 Persons		16,160	14,999 or less
8 Persons		17,900	
9 Persons or more		21,170	19,999 or less

HOUSING CHARACTERISTICS

Housing Unit - A housing unit is a home or apartment.

Number of Rooms in Housing Unit - The total number of rooms in a housing unit excludes bathrooms, porches, halls, and unfinished rooms in the basement or attic.

Rental Payment - Rental payment is the monthly dollar amount spent by a family unit for apartment rent, including heat.

Contract Rent - Contract rent is the monthly rent agreed to or contracted by a household unit, regardless of any furnishings, utilities or services that may be included.

Gross Rent - Gross rent is the monthly rent agreed to or contracted by a household unit regardless of any furnishings, but includes heat, natural gas and electricity.

Appendix B

METHODOLOGY, SAMPLING PROCEDURE AND STATISTICAL ERROR OF THE BOSTON HOUSEHOLD SURVEY

The Boston Household Survey was conducted by the Center for Survey Research of the University of Massachusetts for the Boston Redevelopment Authority during the late winter and spring of 1985. Its purpose was to provide up-to-date, specific and accurate information about persons living in households in the City of Boston and its neighborhoods. Planners and program administrators within city government, executives and decision makers in both the public and private sectors, and researchers have all needed updated information. The main source of information on the characteristics of Boston households has been the decennial U.S. censuses. Therefore, the survey results will provide much needed information in the interim as well as additional information not available from the U.S. Census.

The advantage of a sample survey is that timely information can be gathered quickly and relatively inexpensively. However, because the information is received from a sample of Boston's population rather than the entire population, the results are subject to statistical error. Statistical error is a measure of the degree of uncertainty or, conversely, the level of confidence that should be associated with the survey results. Throughout this report error will mean statistical error, as opposed to mistakes.

This report provides a brief description of the survey methodology. It indicates how the sample was chosen, some of the measures used to ensure a high response rate, and the resulting sample sizes. It also indicates some of the limitations of this survey, and surveys in general.

The Boston Household Survey was designed and conducted so as to obtain information that is representative, relevant, accurate, and reliable as well as timely. The questionnaire was carefully worded and standardized to ensure that each interviewer asked exactly the same questions of each respondent.

The households interviewed were chosen by a stratified two-stage cluster sampling process. In the first stage, the nearly quarter of a million housing units (and all the land area) were assigned to one of three groups: BHA public housing, major new construction (50 or more units) built since the 1980 Census, and all of the remaining housing and land area. These groups were further divided into "sampling units" or "blocks" with a minimum of 25 units in each. Sampling proceeded by choosing nearly 300 of these sampling units and an average of 6.7 housing units, chosen systematically, in each which yielded clusters of just under 5 responding units on average.

The second stage called for giving every housing unit within the city limits of Boston a one in 120 chance of being selected in the sample. This was carefully worked out so that, in fact, the joint probability of selecting a block times the probability of selecting a housing unit from that block was 1 in 120.

1. More detailed information about the sampling process can be obtained from the Center for Survey Research.

The second stage called for giving every housing unit within the city limits of Boston a one in 120 chance of being selected in the sample. This was carefully worked out so that, in fact, the joint probability of selecting a block times the probability of selecting a housing unit from that block was 1 in 120.

A critical goal of the study was to produce estimates for each of 16 planning districts or areas used by the Boston Redevelopment Authority and 18 areas used by NDEA. Because of this goal, the initial selection of blocks was stratified by Neighborhood Statistical Area (NSA), a small geographic unit out of which both sets of planning areas can be formed. In this way, it was ensured that the portion of the total sample that came from each NSA would be in the correct proportion to the city total and not subject to normal sampling variability. This feature of the sampling design reduces the sampling error associated with city-wide estimates.

When a probability of 1 in 120 was applied across each of the planning districts, it was found that several areas would have too few interviews for reliable descriptions because of their small population size. Therefore, households in Charlestown, Franklin Field, and Mission Hill were selected at two times the rate of households in the rest of the city. To help defray costs, households in Allston-Brighton (a comparatively large area) were sampled at 1/2 the rate of the rest of the city. The result of the decision was to strengthen our ability to describe the population in all neighborhood areas. To obtain the overall figures for the city and for areas that cut across planning areas, the sample numbers for each of these four neighborhoods were subsequently weighted by 2 or 1/2 appropriate weights to compensate for the differential probability of selection that reflect the actual proportion of City housing units in those neighborhoods.

The initial selection process produced a list of some 2,064 addresses whose occupants were to be interviewed. No substitutions for any of the selected households were allowed. Of the 2,064 addresses screened, 127 were vacant and 102 were group quarters or nonresidential units. They were not included in the eligible sample of 1,835 occupied units. In these 1,835 occupied housing units were 1,835 families or individual persons and an additional 295 unrelated persons who may have been roommates, lodgers, boarders, etc. Both the head of family unit (family or single person) and any unrelated persons were interviewed. Of the 2,130 potential interviews, 1,625 were completed, 1,491 with household heads and 224 with unrelated persons. This yielded a 76.3% response rate citywide.

Every effort was made to obtain an in-house interview from households chosen for the sample including an advance letter, six personal on-site calls by an interviewer at different times of day, and telephone interview attempts thereafter. The household response rate for neighborhoods varied between 66% and 86%. The sample size goal to yield reliable neighborhood results was 70 completed interviews in each neighborhood. Four neighborhoods had fewer than seventy interviews: Charlestown, North Dorchester, and Roslindale. (See Table 1.)

2. Overall sampling rate for households is the probability of the sampling unit being chosen times the probability of the households within the sampling unit being picked.

TABLE 1. SAMPLE NUMBERS OF ELIGIBLE UNITS AND COMPLETE INTERVIEW WITH RESPONSE RATES BY NEIGHBORHOOD
(BRA Planning District)

<u>Planning District</u>	<u>Occupied Housing Units Plus Unrelated Individuals</u>	<u>HH and U.I. Completed Interviews</u>	<u>Response Rate</u>	<u>Persons Reported Interviewed</u>
East Boston	121	88	73%	196
Charlestown	96	68	71	139
South Boston	116	78	67	153
Central	111	82	74	114
Back Bay/Beacon Hill	138	102	74	135
South End	93	74	80	121
Fenway/Kenmore	133	112	84	175
Allston/Brighton	171	143	81	204
Jamaica Plain/Parker Hill	246	188	76	368
Roxbury	198	155	78	377
North Dorchester	85	69	81	177
South Dorchester	174	131	75	353
Mattapan	189	148	78	444
Roslindale	103	68	66	172
West Roxbury	110	76	69	192
Hyde Park	88	76	86	214
	<u>2,130</u>	<u>1,625</u>		<u>3,534</u>

* Numbers of persons in this column have been weighted. Numbers in parentheses are unweighted numbers of persons, the actual number of persons reported.

Source: Floyd J. Fowler, Jr., "Final Report: Procedures for Survey of Boston's Neighborhoods", Center for Survey Research, University of Massachusetts - Boston, August 1985; Survey results.

While this survey was carried out in a careful scientific manner, the user should be aware that there is error inherent in any sample survey results. Therefore, some cautions are necessary in the use and interpretation of these data.

The user must recognize that this is a sample of Boston's housing units and their associated households. As such, it does not include persons in dormitories, jails, convents, nursing homes, and other "group quarters" as well as those with no permanent home. Although the impact of this bias may be small, it is well to bear in mind that this is not a sample of the city's entire population, both for the representativeness of the results and their comparability with other data sources, such as the U.S. Census.

The largest source of error is nonresponse, cited above. Fortunately what information is available about nonrespondents indicates that they do not differ systematically and significantly from respondents except that they are more likely to live alone, to be white, to be under 65 years old, and to have no children living with them. However, we cannot really know in what way the absence of 24% of Boston's family units from our sample biases our results.

Another source of error is sampling error or variability which is due solely to chance. It is the error associated with taking a sample rather than the entire population as the study group. It is akin to the notion of the variability in the number of heads and tails turned up during 100 tosses of a coin. The amount of error associated with a sample percentage depends on both the size of the reported percent and the sample size on which the percent is based. Table 2 indicates the appropriate error for each sample value. The error, in general, declines as the sample values are further from 50% and the sample size increases. The user should not assume that the sample value is exactly the value for the population. The correct interpretation of sample results and the associated error is that the true value for the population lies somewhere within the range of sampling error around the sample value.

For instance, sample survey results indicate that 31 percent of the families living in the Back Bay/Central/South End neighborhoods earn \$50,000 or more a year. Because this proportion is based on a sample, it is uncertain whether or not the actual value is 31 percent. However, we can be almost certain that the true value lies close to this percentage. The calculation of sampling errors in Table 2 helps us to know how close. The 31 percent figure comes from the fraction 19/62. Therefore, we look in Table 2 for the row in which sample size is about 50 and the column in which the reported percent is about 20 or 80 percent. This yields a sample error of 12 percent. From this information, we know that the actual percentage earning \$50,000 or more a year among families in these neighborhoods lies between 19 and 43 percent ($31\% \pm 12\%$). Again, we might want to know the associated sampling error for all families in Boston earning \$50,000 or more, 10 percent, which is based on a size of 634 families citywide. Table 2 tells us that for a reported percentage of 10 percent and a sample size of 634, the sampling error is 3 percent. So the value for families is expected to be no more than 3 percent from the sample value of 10 percent, or between 7 and 13 percent.

This statement about error is not intended to discourage use of survey information. Instead, use of these materials is encouraged; the data included are the most current available and, in some cases, are not obtainable from any other reliable source.

TABLE 2. SAMPLING ERRORS BY SAMPLE
SIZE AND APPROXIMATE REPORTED PERCENTAGE
FOR THE BOSTON STUDY

<u>Sample Size</u>	<u>5 or 95%</u>	<u>10 or 90%</u>	<u>20 or 80%</u>	<u>50%</u>
50	-	-	12	16
75	-	7	10	13
100	-	7	9	11
150	4	5	7	8
175	4	5	7	8
200	3	5	6	8
250	3	4	6	7
300	3	4	5	6
400	2	3	4	6
500	2	3	4	5
750	2	3	4	5

Chances are 95 in 100 that the central value lies within the reported survey value, plus or minus the number of percentage points shown in this table. Errors included here assume average net design effect for clustering and stratification is 1.2.

Source: Floyd J. Fowler, Jr., "Final Report: Procedures for Survey of Boston's Neighborhoods", "Center for Survey Research, University of Massachusetts-Boston, August, 1985.

